

Application No. 10/695,129  
Amendment A dated December 22, 2005  
Reply to Office Action mailed July 22, 2005

### REMARKS / ARGUMENTS

The present Amendment is in response to the Examiner's Office Action mailed July 22, 2005. Claims 1, 6, and 12 are amended. Claims 1-16 remain pending in view of the above amendments.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of the references, if any, is consistent with the Examiner's understanding. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

#### Declaration

The Office Action required a new oath or declaration in compliance with 37 C.F.R. 1.67(a) identifying this application by application number and filing date. A new oath and declaration accompanies this response.

#### Specification

The specification has been amended as presented in the "Amendments to the Specification" section of this response as required by the Examiner to change the figure numbers in the specification to match the drawing changes submitted previously.

#### Rejections Under 35 U.S.C. § 102

The Office Action rejected claims 6-15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,243,508 (*Jewell*). Anticipation requires that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628,

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631, 2 USPQ.2d 1051, 1053 (Fed. Cir. 1987). The following discussion illustrates that claims 6-15 are not anticipated by *Jewell*.

The Office Action states that the lens may be designed to aberrate the light so that an image on the receiving device is defocused, in order to reduce feedback. See col. 8, lines 45-52. In fact, *Jewell* teaches that it may be beneficial to introduce defocus in the optical elements 24. *Jewell* is silent regarding ways that the defocus is achieved.

Claim 6, in contrast, requires that "the lens receives light generated by the source optical element and focuses the light on the receiving optical element". Claim 6 further requires that the focusing lens surface of the lens "has a curvature that introduces aberrations in the light being coupled with the receiving optical element such that an image on the receiving optical device is aberrated at the surface of the receiving optical element within a containment envelope defined on the surface of the receiving optical element".

Thus, claim 6 requires that the lens focus the light on the receiving optical element while *Jewell* teaches a defocus of the optical element 24. See col. 8, lines 45-46. Further, claim 6 requires the lens to have a curvature that introduces aberrations in the light being coupled with the receiving optical element. Thus, claim 6 focuses the light using a lens that introduces aberrations into the light while *Jewell* teaches introducing defocusing of the optical element without describing how the defocus is achieved.

Further, the amount of aberration is controlled in claim 6 such that the aberrated light is within a containment envelope defined on the surface of the receiving optical element. The containment envelope has a diameter that is less than the diameter of a fiber. This ensures that the aberrated light is sufficiently far away from the edges of the fiber to have good containment and effective coupling with the fiber.

Similarly, claim 12 requires focusing means for aberrating light of the source optical element focused on the receiving optical element. Claim 12 further requires that the image of the light is aberrated without exceeding a containment envelope defined on the receiving optical element. *Jewell* is silent as to keeping the aberration within a containment envelope defined on the receiving optical element.

For at least these reasons, *Jewell* fails to teach or suggest claims 6 and 12. Claims 9-11, and 13-15 depend from claims 6 and 12 and also overcome *Jewell* for at least the same reasons.

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### Rejections Under 35 U.S.C. § 103

The Office Action rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over *Jewell*. Claims 1-16 were also rejected as being unpatentable over U.S. Patent No. 6,302,596 (*Cohen*) in view of U.S. Patent 5,515,469 (*Zarem*). A *prima facie* case of obviousness requires: (i) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (ii) there must be a reasonable expectation of success; and (iii) the prior art references must teach or suggest all the claim limitations. See MPEP § 2143. The following discussion illustrates that the references of *Cohen* and *Zarem* do not establish a *prima facie* case of obviousness.

The Office Action admits that *Cohen* does not mention aberrating the light to reduce feedback and relies on *Zarem* to teach that a lens is intentionally configured so that the light incident on the fiber is defocused. As discussed below, this teaching differs from the requirements of claims 1-16. For example, *Zarem* teaches “non-axial alignment of the laser and lens and “loose coupling” of the light from the laser to the optical fiber.” See col. 4, lines 25-27. Further, *Zarem* teaches that “the spacings of the laser, lens and aperture plane are fixed . . . so that light from the laser is deliberately not focused on the aperture plane.” See col. 4, lines 33-36.

Each of claims 1, 6, and 12 requires the lens to focus the light on a surface of the receiving optical element. Specifically, claim 1 requires “a lens . . . that focuses light from the source optical element on a surface of the receiving optical element”, claim 6 requires that “the lens . . . focus[es] the light on the receiving optical element”, and claim 12 requires “focusing means for aberrating light from the source optical element such that an image of the source optical element focused on the receiving optical element”. In contrast, *Zarem* explicitly teaches that light from the laser is deliberately not focused on the aperture plane. See col. 4, lines 33-36.

Further, *Zarem* teaches that the “area of the ceramic plug illuminated is larger than the area of the end of the fiber core and only light that illuminates the end of the fiber core can enter it.” See col. 4, lines 43-45. Claims 6 and 12 require that the light is aberrated within a containment envelope defined on the surface of the receiving optical element and that the containment envelope have a diameter that is less than a diameter of a fiber in the receiving optical element. As a result of the teachings of *Zarem*, only “three to five percent” of the light

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from the laser actually enters the core of the fiber. See col. 4, lines 37-38. This is because, as described above, the illuminated area is larger than the fiber core. See col. 4, lines 42-45. Claims 6 and 12, which require the containment envelope to have a diameter that is less than a fiber in the receiving optical element, results in effectively coupled light, not the "loosely coupled" three to five percent taught by Zarem.

Thus, Cohen does not specifically mention aberrating the light as admitted in the Office Action and Zarem does not provide this missing teaching for the reasons discussed above. As a result, Cohen and Zarem fail to establish a *prima facie* case of obviousness.

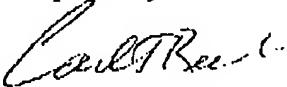
For at least these reasons, claims 1, 6, and 12 overcome the cited art and are in condition for allowance. The dependent claims 2-5, 7-11, and 13-16 also overcome the art of record for at least the same reason.

### CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 22<sup>nd</sup> day of December 2005.

Respectfully submitted,

  
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